

Product Modelling and Virtual Reality MNFG-608

EDUCATIONAL TOY

 **Gramlin Squirrel**

Presented by - Aadeesh Kurde (201595219)

*Wouldn't it be nice if kids can learn correct grammar, new languages and multiplication tables in a fun interactive way without sitting in front of screen?
- This friendly Gramlin squirrel is here to assist with that!*



Goals



❖ Learning through play

Understand more, keeps the interest and effective

❖ Not sitting in front of screen

Harmful for eyes, counterproductive, lead to bad habit

❖ Not bury head in book

Tiring, lose interest over time

❖ Learn grammar correctly

Interaction, improves understanding

❖ Learn multiplication tables correctly^[2]

boosts problem-solving, critical-thinking, and listening skills, in addition to improving memory, concentration, and the ability to multitask
nurturing their curiosity, cultural sensitivity, empathy, and tolerance

❖ Refine new language basics^[1]

builds confidence in mathematics, promotes number sense, improved problem-solving abilities



Hot Dots Jolly Grammar: £ 28-30; 4-8 years old

The toy helps toddlers to learn about correct grammar structures and phonetics using pre-build templates and interactive pen.

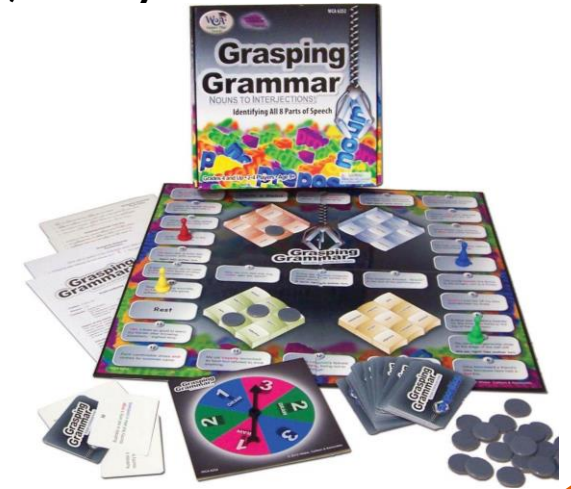
It allows kids to put dots in correct sequence and gives feedback. It has pictures for improving understanding with grammar structures revealed on template.



Competition: At the present, there are no significant commercially available toys which will help children learn about grammar, new language and multiplication tables in interactive way. However, the following competitor products are based on similar idea and help learn grammar in their own way.

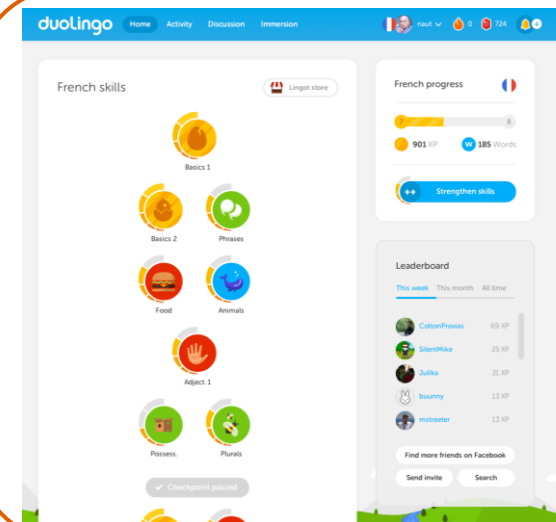
Grasping Grammar Game: £ 25; 8-12 years old

The toy is multilayer complex game to learn in depth about multiple grammar structures in English language. It has currency system to teach basics about maths, toy challenges to deal with complex grammar structures.



Times Tables Heroes Game: £ 10-15; 6-9 years old

This toy is interactive board game which helps children to learn about general mathematical operations and multiplication tables using spinners, wheels and cards. Kids can take advantage of printed multiplication tables while playing. It is 2 player game.



Duolingo: £ (free-50)*; 5+ years old

This is smart application on mobile and tablets and major source for teaching new languages to kids with fun mini games. Although it is widely popular and accessible, kids need to sit in front of screen to learn.

Speaker

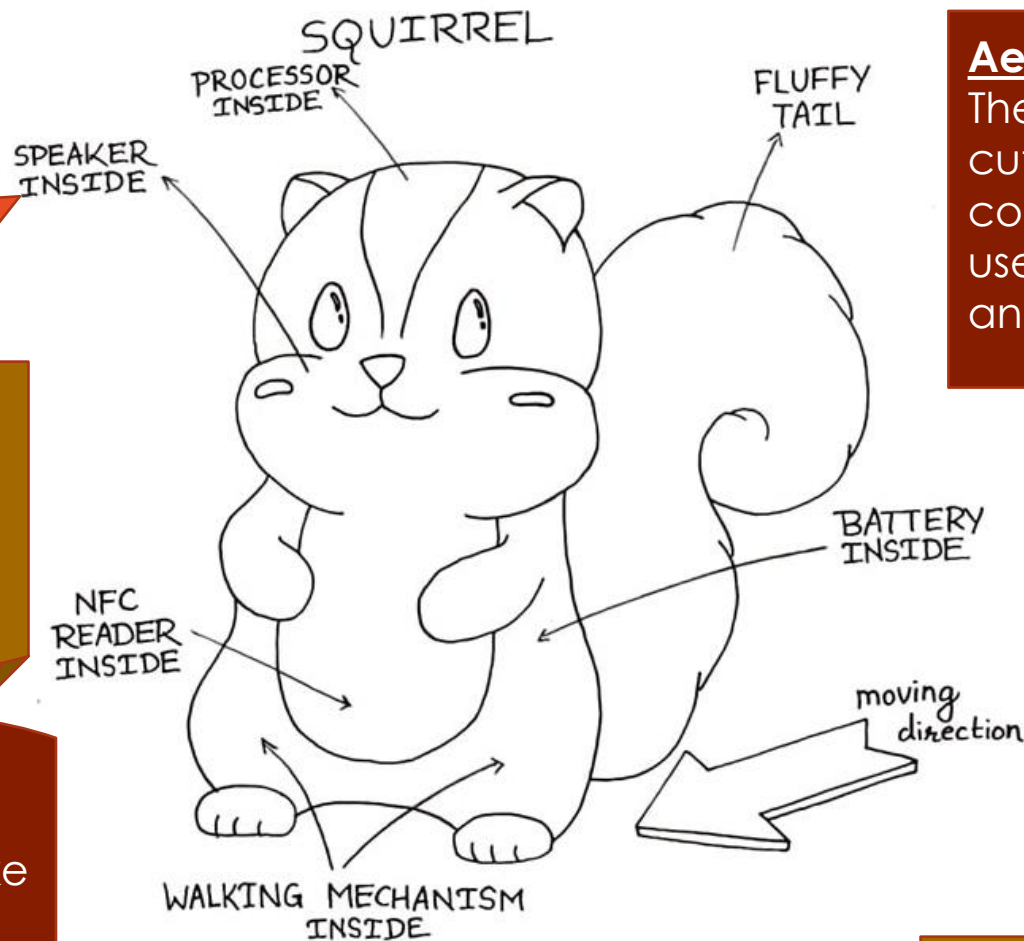
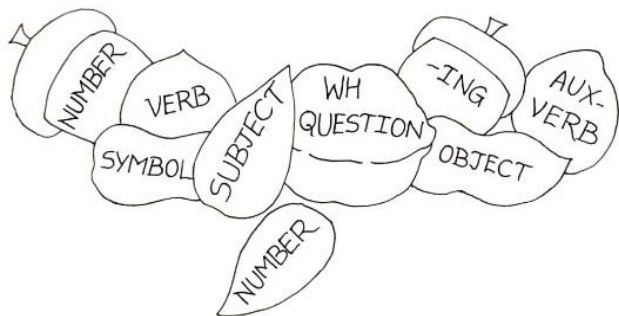
communicate back the answers to children and encourage for learning more in friendly manner.

Movement

Gramlin squirrel will move around on its legs to collect nuts. Playful gestures.

Learning Modes

This toy has different modes like grammar, new language and multiplication tables.

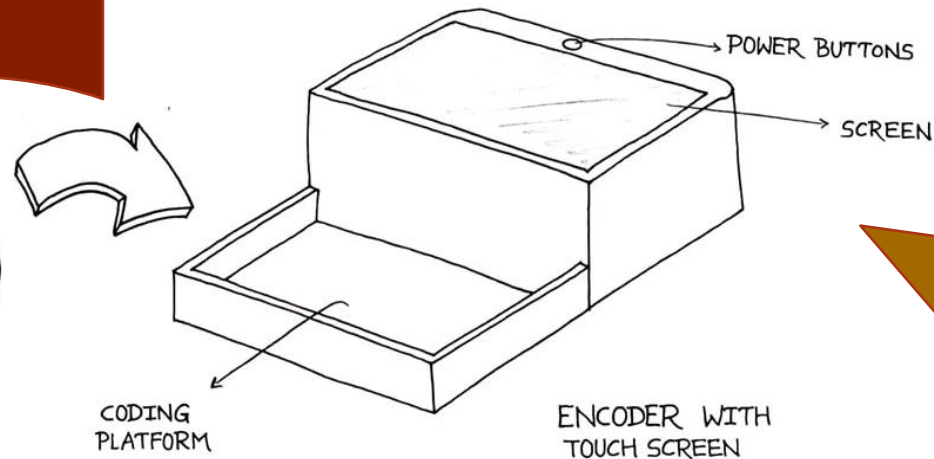


Aesthetics

The squirrel is designed to look cute and friendly. Nice coloured fur, and fluffy tail is used to make it look adorable and safe to play with.

Processor and Sensor

Processor computes the NFC interaction and operate the audio capabilities of toy. Sensors sense the surrounding, scan nuts and help to regulate the movement.



Different Nuts and Coding

Variety of Big Nuts with NFC tags built in them are provided. These nuts can be coded differently for each assignment with NFC encoder.

Easily fits in any environment



- Animal stuffed toy – For cute learning buddy
Enhances interaction and makes open minded, prone to learn new things. [3]
- A squirrel – fidgety, friendly and adorable
- Also, different inputs – eating as nuts



Aimed for 6–12-year-old kids
Wants to learn new language
Learn multiplication tables
A friendly soft toy for £199



**Parents can monitor learning
& Easy to operate**

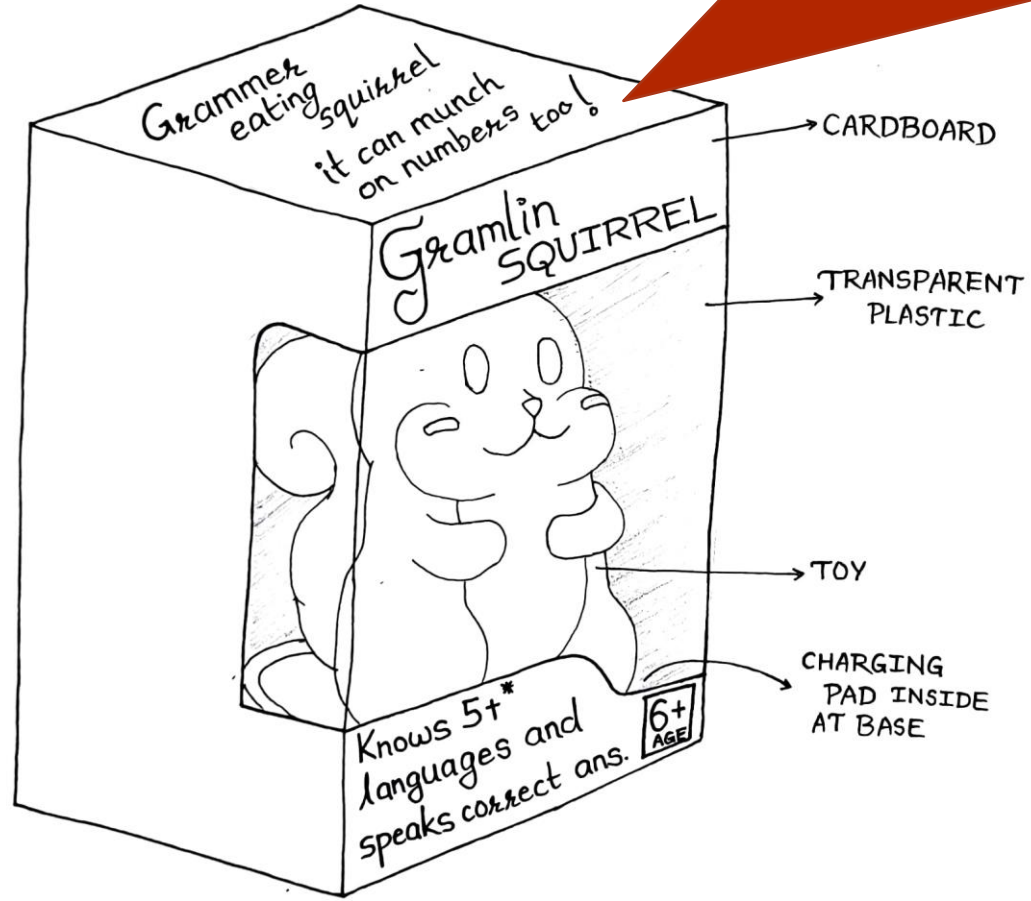
Market



Packaging & Storage

The squirrel, encoder, nuts and charging pad in cardboard box. Front transparent plastic side showing squirrel and nuts to attract children.

The function pictures are placed on the sides of box for the parents. The storage of the toy is convenient - when the toy is not in use, squirrel will rest on charging pad. It will automatically charge the batteries and accommodate it safely. Nuts can be kept together with encoder.





Gramlin Squirrel

grammar eating squirrel, it can munch on numbers also!

Thank you

[1] Benefits of Learning a Second Language in High School & Middle School (leadwithlanguages.org)

[2] TEACHING MULTIPLICATION AND MULTIPLICATION TABLES Study- <https://files.eric.ed.gov/fulltext/ED574386.pdf>

[3] TEMPANI animal toy study - 5 Reasons Why Playing With Animal Figurines Is Beneficial For A Child – Fun Montessori Toys